**TITLE: The Quidditch Cup**

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| Mathematical Goals | Students will be able to solve multi-step words problems using the four operations—including problems in which remainders must be interpreted. |
| Common Core Standards | 4.OA.2 |
| Prior Knowledge Needed | Fluency with triple-digit by single-digit multiplication.  Division with three-digit quotients.  Working knowledge of Harry Potter and quidditch. |
| Vocabulary | Quotient  Divisor  Factor  Product  Average |
| Materials | Pencil  Paper  Graph Paper  Excerpt from a Harry Potter book  Various Math Manipulatives |

Task:

Launch Time: 5 min.

Ask how many students have read the Harry Potter books or seen the Harry Potter movies. Ask what sport Harry Potter loves to play. QUIDDITCH! Ask if anyone knows the rules of quidditch. Read a section from the first book, describing what quidditch is and how it is played. Ask questions and explain what the house cup is and when it is awarded.

Explore Time: 20-30 min.

Each quidditch team at Hogwarts will play one last game before the Quidditch Cup is awarded. In the past, the Quidditch Cup has always gone to a team who has scored an average of at least 230 points per game. After playing 7 games, Gryffindor has 1,600 points, Hufflepuff has 1,590 points, Ravenclaw has 1,630 points, and Slytherin has 1,610 points. How many points will each team need to score in the eighth game in order to have a good chance of winning the Quidditch Cup?

Debrief Time: 10-15 min.

Groups use visuals to support the verbal explanation of their solution. Groups will present cooperatively.

Extensions

* Explain how each house can get the number of points they need in the last game to have a good chance of winning the Quidditch Cup.
* In the eighth game, only 4 players from each team score points, and they each score the same number of points, how many points will each player need to score? Use decimals and fractions to represent your answer if needed.